Abstract

Grant Number: 1 X01 MH077634-01
PI Name: RUBINSTEIN, AMY L.
PI Email: amy@zygogen.com
PI Title: DIRECTOR OF RESEARCH

Project Title: Zebrafish Lipid Metabolism Assay

Abstract: DESCRIPTION (provided by applicant): The purpose of this proposal is to submit an assay to screen compounds as part of the Molecular Libraries Screening Centers Network. The assay described in this proposal provides an in vivo, quantitative measure of lipid absorption and processing in the digestive system of a vertebrate organism, the zebrafish. The zebrafish processes lipids through the digestive system in a manner similar to mammals. Because zebrafish larvae are essentially transparent, such processing can be readily observed in the whole organism, with the aid of fluorescent lipid substrates, which are swallowed by the zebrafish larvae and transported from the intestine to the liver and gall bladder. Cardiovascular disease is the number one cause of death in the United States today. High levels of cholesterol and triglycerides have been identified as major contributing factors to heart disease. Thus, an assay that can identify compounds with lipid lowering properties would be of substantial benefit to human health.

Thesaurus Terms:
High throughput screening, assay, MLSCN, digestive system, zebrafish, fluorescent lipid substrates, liver gall bladder, Cardiovascular disease, cholesterol, triglycerides, heart disease

Institution: ZYGOGEN, LLC
520 KELL HALL
24 PEACHTREE CENTER AVENUE
ATLANTA, GA 30303

Fiscal Year: 2006
Department: ZYGOGEN RESEARCH DEPARTMENT
Project Start: 2006/02/01
Project End: 2007/01/31
ICD: NATIONAL INSTITUTE OF MENTAL HEALTH
IRG: ZMH1